

WORLD-BEAM Models

Sensing Mode	Model*	Output Type	Sensing Mode	Model*	Output Type
20 m (66') Opposed	QS186E	Emitter	450 mm (18") Diffuse	QS18VN6D	NPN
	QS18VN6R	NPN		QS18VP6D	PNP
	QS18VP6R	PNP	450 mm (18") Diffuse	QS18VN6DB	NPN
3 m (10') Opposed	QS186EB	Emitter		QS18VP6DB	PNP
	QS18VN6RB	NPN	100 mm (4") Divergent Diffuse	QS18VN6W	NPN
	QS18VP6RB	PNP		QS18VP6W	PNP
3.5 m (12') Polarized Retro	QS18VN6LP	NPN	220 mm (8.7") Individual (Opposed)	QS18VN6FP	NPN
	QS18VP6LP	PNP		QS18VP6FP	PNP
6.5 m (21') Non Polarized Retro	QS18VN6LV	NPN	60 mm (2.4") Bifurcated (Diffuse)	QS18VN6FP	NPN
	QS18VP6LV	PNP		QS18VP6FP	PNP
16 mm (0.63") Convergent	QS18VN6CV15	NPN	Range specified using 1.5 mm plastic fiber optics		
	QS18VP6CV15	PNP			
43 mm (1.7") Convergent	QS18VN6CV45	NPN			
	QS18VP6CV45	PNP			

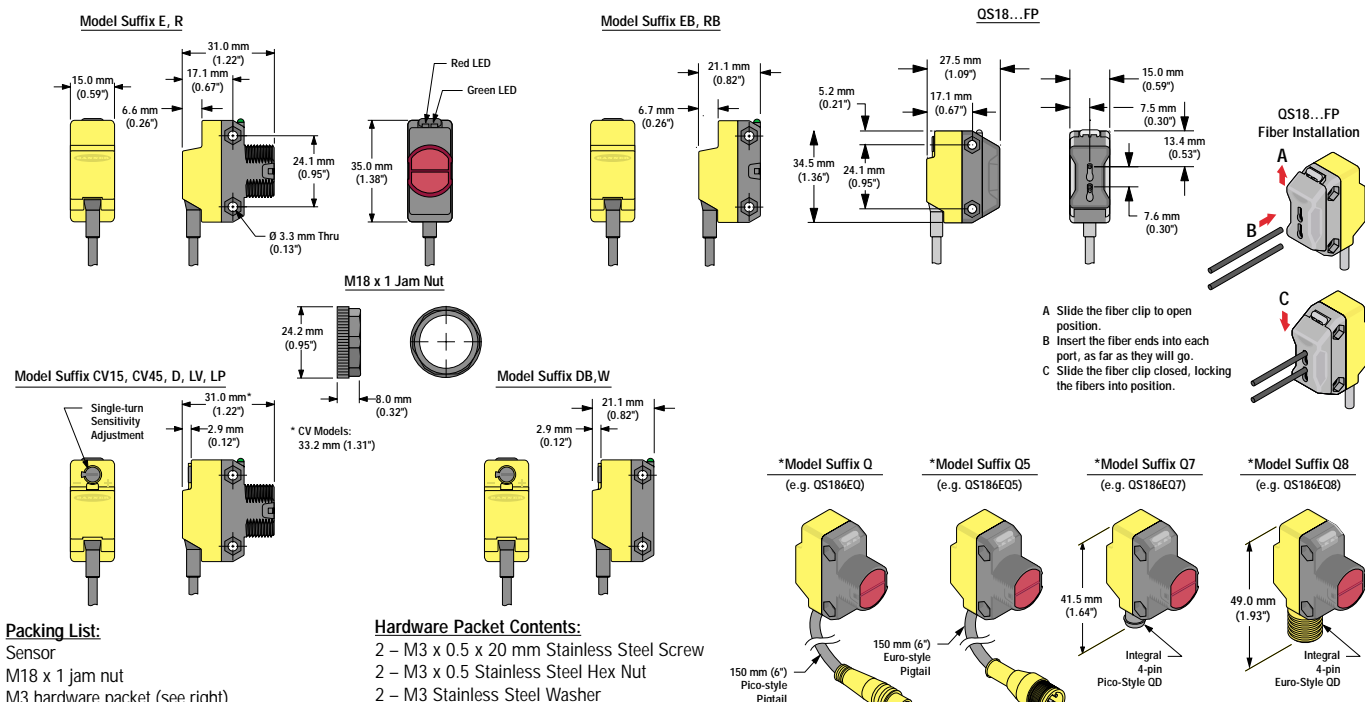
* Only standard 2m (6.5') cable models are listed. For 9 m (30') cable, add suffix "W/30" to the model number (e.g., QS186E W/30).



QD models:

- 4-pin integral Euro-style QD: add suffix "Q8" (e.g., QS186EQ8).
- 4-pin 150 mm (6") Euro-style pigtail: add suffix "Q5" (e.g., QS186EQ5).
- 4-pin integral Pico-style QD: add suffix "Q7" (e.g., QS186EQ7).
- 4-pin 150 mm (6") Pico-style pigtail: add suffix "Q" (e.g., QS186EQ).

WORLD-BEAM Dimensions and Features




Packing List:

Sensor
M18 x 1 jam nut
M3 hardware packet (see right)
English installation sheet, P/N 63687
Multi-language installation sheet, P/N 63689

Hardware Packet Contents:

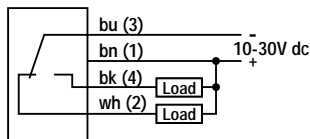
2 - M3 x 0.5 x 20 mm Stainless Steel Screw
2 - M3 x 0.5 Stainless Steel Hex Nut
2 - M3 Stainless Steel Washer

WORLD-BEAM Specifications

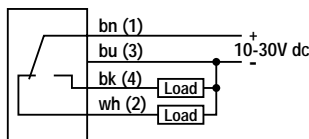
Supply Voltage	10 to 30V dc (10% maximum ripple) at less than 25 mA, exclusive of load; Protected against reverse polarity and transient voltages
Light Source	Opposed and Diffuse mode models: 940 nm infrared; Plastic Fiber Optic , Retroreflective , and Convergent mode models: 660 nm visible red
Output Configuration	Solid-state complementary (SPDT): NPN or PNP (current sinking or sourcing), depending on model; Rating: 100 mA maximum each output at 25°C Off-state leakage current: less than 50 µA @ 30V dc ON-state saturation voltage: less than 1V @ 10 mA; less than 1.5V @ 100 mA Protected against false pulse on power-up and continuous overload or short circuit of outputs
Output Response	Opposed Mode: 750 microseconds ON; 375 microseconds OFF All others: 600 microseconds ON/OFF NOTE: 100 millisecond delay on power-up; outputs do not conduct during this time
Repeatability	Opposed Mode: 100 microseconds All others: 150 microseconds
Adjustments	Plastic Fiber Optic , Convergent , Diffuse , and Retroreflective mode models (only): Single-turn sensitivity (GAIN) adjustment potentiometer
Indicators	2 LED indicators: Green steady: Power ON Green flashing: Output overloaded Red steady: Light sensed Red flashing: Marginal excess gain (1.0 to 1.5x excess gain)
Construction	Polycarbonate/ABS alloy housing, rated IEC IP67; NEMA 6
Connections	2 m (6.5') 4-wire PVC cable 4-pin Pico-style QD 4-pin Euro-style QD 9 m (30') 4-wire PVC cable 4-pin Pico-style 150 mm (6") pigtail QD 4-pin Euro-style 150 mm (6") pigtail QD
Operating Conditions	Temperature: -20° to +70° C (-4° to + 158° F) Relative Humidity: 90% @ 50° C (non-condensing)
Certifications	

WORLD-BEAM Hookups

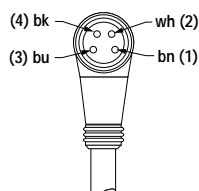
QS18 Sensors with
NPN (Sinking) Outputs



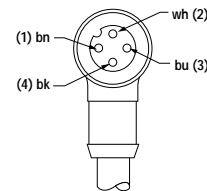
QS18 Sensors with
PNP (Sourcing) Outputs



4-Pin Pico-Style Pin-out
(Cable Connector Shown)



4-Pin Euro-Style Pin-out
(Cable Connector Shown)



NOTE: 1) Opposed mode emitters have no output connections

WARRANTY: Banner Engineering Corp. warrants its products to be free from defects for one year. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture found to be defective at the time it is returned to the factory during the warranty period. This warranty does not cover damage or liability for the improper application of Banner products. This warranty is in lieu of any other warranty either expressed or implied.



WARNING . . . Not To Be Used for Personnel Protection

Never use these products as sensing devices for personnel protection. Doing so could lead to serious injury or death.

These sensors do NOT include the self-checking redundant circuitry necessary to allow their use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition. Consult your current Banner Safety Products catalog for safety products which meet OSHA, ANSI and IEC standards for personnel protection.